

Exercise	1	Total
100%	9	9
Points		

Name:

Extragalactic Astronomy and Cosmology

Homework 9 - Lecture 21 - Dark Matter

Due date: November 21

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1 Are black holes the dark matter component?

Suppose it were suggested that black holes of mass 10^{-10} solar masses might make up the dark matter in our galactic halo. Make a rough estimate of how far away you'd expect the nearest such black hole to be.

How does this compare to the size of the solar system?

How likely it is, based on this result, that black holes are indeed the dark matter component?